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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/281,813	03/31/1999	STEPHEN PALM	P17243	7668

7055 7590 03/19/2002

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RESTON, VA 20191

EXAMINER

NGUYEN, DUNG X

ART UNIT	PAPER NUMBER
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2631

DATE MAILED: 03/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/281,813

Applicant(s)

PALM, STEPHEN

Examiner

Dung X Nguyen

Art Unit

2631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 41 is/are pending in the application.
- 4a) Of the above claim(s) 11 - 30 and 39 - 41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 6 - 8, and 31 - 38 is/are rejected.
- 7) ☒ Claim(s) 2, 4 - 5, and 9 - 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6-11, 15.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: Supplemental IDS, paper # 13.

DETAILED ACTION

Response to Arguments

1. Applicant's election and arguments filed on 07 January 2002 have been fully considered.

Claims 1 – 10 and 31 – 38 have been merged for examination purpose as requested. However, the restriction requirement set forth in the previous office action is maintained with respect to claims 11 – 30 and 39 – 41.

Note that the claims of group I do not need the details of neither group II, group III, nor group IV for establishing a communication link. Group II do not need the details of neither group I, group III, nor group IV for testing the characteristics of communication system. Group III do not need the details of neither group I, group II, nor group IV for determining carriers. And group IV do not need the details of neither group I, group II, nor group III for configuring the handshake parameters of communication system. Furthermore, applicant's response does not specifically point out why the search for various inventions would be co-extensive and not a serious burden to the examiner.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification and by recognized divergent subject matter, the restriction for examination purposes as indicated is proper. Thus it is made a **FINAL** as these inventions do carry a serious burden to examiners for examining on different classification and divergent subject matter.

2. The non-elected claims 11 – 30, and 39 – 41 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. **Claims 35 - 38 are rejected** under 35 U.S.C. 102(b) as being anticipated by McGlynn et al. (U.S. Patent No. 4,953,210).

Regarding claim 35, McGlynn et al. discloses that a feature for establishing a communication link between two synchronous modems (Abstract), comprising:

- Transmitting a handshaking sequence which has the capability of negotiating more than one feature (column 3, lines 42 – 47);
- Receiving a handshaking sequence which has the capability of negotiating more than one feature (column 3, lines 42 – 47);

- Selecting an appropriate communication device according to the list of features that it desire to implement (column 3, lines 48 – 54);
- Executing the default feature to re-establish a communication link if the originating modem does not initiate the negotiations, if the answering modem does not respond to the list sent by the originating modem, or if negotiations are not completed (Abstract).

Regarding claim 36, the limitations are analyzed in the same manner set forth as claim 35.

Regarding claim 37, McGlynn et al. discloses that a feature for establishing a communication link between two synchronous modems (Abstract), comprising:

- Executing a negotiation protocol to establish a communication link between two synchronous modems (Abstract and column 4);
- Adjusting retraining sequence according to the result of the negotiation protocol (Tables 1 & 2 and columns 5 & 6).

Regarding claim 38, McGlynn et al. discloses that the retraining sequence can be managed by tables 1 & 2 on columns 5 & 6.

5. **Claims 1, 3, 6 – 8, and 31 - 38 are also rejected** under 35 U.S.C. 102(e) as being anticipated by Gatherer et al. (U.S. Patent No. 6,044,107).

Regarding claim 1, Gatherer et al. discloses that a DSL system can also be implemented with multiple carriers using the DMT line code (column 18, lines 24 – 25), comprising:

- Transmitting a negotiation protocol from calling modem, which has the capability of implementing either CAP or DMT line codes (column 18, line 50 to column 19, line 6);
- Receiving a negotiation protocol from answering modem, which has the capability of implementing either CAP or DMT line codes (column 18, line 5 to column 19, line 31);
- Selecting an appropriate communication device (based on usage tariff), in accordance with the responding communication device, to establish a communication link (column 18, line 63 to column 19, line 6).

Regarding claim 3, Gatherer et al. discloses the MDSL modem for dividing spectrum into a plurality of bands (column 20, lines 33 – 35).

Regarding claim 6, Gatherer et al. discloses the DSP software similar to voice-band modems for modem in a DSL mode including echo cancellation and error correction (column 10, lines 8 – 32) and then using a selected portion of those above sets (column 20, lines 37 – 41).

Regarding claim 7, Gatherer et al. discloses that a DSL system can also be implemented with multiple carriers using the DMT line code (column 18, lines 24 – 25), comprising:

- Transmitting carriers according to a predefined time sequence to a responding communication device (column 18, line 50 to column 19, line 22);
- Receiving carriers according to a predefined time sequence from a responding communication device (column 18, line 50 to column 19, line 22);
- Selecting an appropriate communication device (based on usage tariff), in accordance with the responding communication device, to establish a communication link (column 18, line 63 to column 19, line 6).

Regarding claim 8, Gatherer et al. discloses the MDSL modem for dividing spectrum into a plurality of bands (column 20, lines 33 – 35).

Regarding claim 31, Gatherer et al. discloses a method for establishing a communication link, comprising:

- Exchanging under-sampling carriers (Abstract) between an initiating communication device and responding communication device, to negotiate on rate operation (column 18, line 63 to column 19, line 5); and
- Executing a fallback procedure to establish a predetermined link (column 21, line 57 to column 21, line 18) in accordance to the determination of channel probing period (column 19, lines 7 – 45).

Regarding claim 32, Gatherer et al. discloses wherein executing a fallback procedure further comprising a feature of “Prefer Highest Rate” (column 24, line 3) to re-establish the communication link.

Regarding claim 33, Gatherer et al. discloses wherein executing a fallback procedure further comprising a feature of an executing a predetermined explicit connection procedure (column 22, line 4 to column 23, line 7) to re-establish the communication link.

Regarding claim 34, Gatherer et al. discloses wherein executing a fallback procedure further comprising a feature of executing a voiceband modulation procedure through the telephone loop to establish a voiceband communication link (column 24, lines 13 – 55).

Regarding claim 35, Gatherer et al. discloses that a DSL system can be implemented with multiple carriers using the DMT line code (column 18, lines 24 – 25), also provided a communication link between central office and subscriber-end (column 18, lines 63 – 66), comprising:

- Transmitting a negotiation protocol from calling modem, which has the capability of implementing either CAP or DMT line codes (column 18, line 50 to column 19, line 6), and based on the channel limit, traffic condition, or usage tariff (column 18, line 63 to column 19, line 3);
- Receiving a negotiation protocol from answering modem, which has the capability of implementing either CAP or DMT line codes (column 18, line 50 to column 19, line 31), and based on the channel limit, traffic condition, or usage tariff (column 18, line 63 to column 19, line 3);
- Selecting an appropriate communication device (based on usage tariff), in accordance with the responding communication device, to establish a communication link (column 18, line 63 to column 19, line 6).
- Executing an initialization procedure to re-establish the communication link in case no data at the exchanging carrier band (column 20, line 46 to column 21, line 18) in accordance to the determination of channel probing period (column 19, lines 7 – 45).

Regarding claim 36, the limitations are analyzed in the same manner set forth as claim 35.

Regarding claim 37, Gatherer et al. discloses a method for establishing a communication link, comprising:

- Executing a negotiation protocol to establish a communication link between central office and subscriber-end (column 18, line 63 to column 19, line 5); and
- Adjusting rate of sub-channels or tones used in transmission according to the overall desired negotiation (column 29, line 1 to column 30, line 22).

Regarding claim 38, Gatherer et al. also discloses that the embedded operations channel transmits data managed by the equations listed on column 21, lines 1 - 53.

Allowable Subject Matter

6. **Claims 2, 4, 5, 9, and 10 are objected** to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Detlefsen et al. (U.S. Patent No. 6,205,208 B1) discloses a method for dynamical identifying/processing of data communications of various types.

Nakatsugawa (U.S. Patent No. 6,141,354) discloses a data transmission/reception involving a predetermined transfer speed.

Cioffi (U.S. patent No. 5,933,454) discloses a multi-carrier data transmissions system using an overhead bus for synchronizing multiple remote units.

Bergins et al. (U.S. Patent No. 5,826,198) discloses a transmission of data over a radio frequency channel.

Ahmed (U.S. Patent No. 5,633,890) discloses a method for two-way digital communication between DTE and DCE, includes a novel command set.

Davis et al. (U.S. Patent No. 5,491,720) discloses a data communication system for automatically determining a data communication device and associated transmission speed.

Dagdeviren et al. (U.S. Patent No. 5,371,534) discloses an ISDN-based system for making a video call.

Cooper (U.S. Patent No. 5,144,651) discloses several techniques for reducing the amount of time between initiation of a terminal request through a dial-up telephone line and the actual initiation of transactions between the terminal and a host computer.

Contact Information

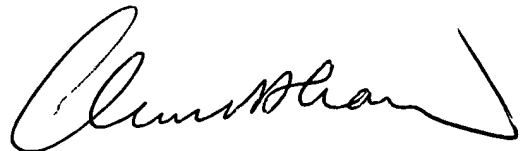
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung X. Nguyen whose telephone number is (703) 305-4892. The examiner can normally be reached on Monday through Friday from 9:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Chi Pham can be reached on (703) 308-4378. The fax phone numbers for this group is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305- 3800.

DXN

March 08, 2002



CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

3/12/02

Official

GREENBLUM &
BERNSTEIN, P.L.C.

FAX MSG NO. P17243.F12


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SENDING FAX NO. 703-716-1180

*****CONFIDENTIALITY NOTE*****

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CALLED TEL. NO.: 703-872-9314

TO : U.S. Patent and Trademark Office
ATTN : Examiner Dung X. NGUYEN (Art Unit 2631) 
FROM : Greenblum & Bernstein, P.L.C.
DATE : February 8, 2002
SUBJECT : U.S. Patent Application No. 09/281,813, entitled "Activation of Multiple xDSL Modems With Implicit Channel Probe" in the name of Stephen Palm;
Our Ref.: P17243

Dear Mr. Nguyen:

Pursuant to our telephone conversation of today, please find enclosed a copy of the Supplemental Information Disclosure Statement that was filed with the U.S. Patent and Trademark Office on October 14, 1999 in the above-referenced application. Also included is a copy of the date stamped filing receipt evidencing the October 14, 1999 filing of the Supplemental Information Disclosure Statement. Please note that this is the third time it has been sent via facsimile and that we have not included copies of the U.S. references, since you can readily obtain them.

Please call ~~Alex DeMartini~~ at 703-716-1191 to confirm receipt of this facsimile.

Stephanie Petreas or Eric Taylor

Thank you,

Steve Wegman